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Chemical Weed Control in Corn 1977

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Chemical Weed Control in Corn 1977

COOPERATIVE EXTENSION SERVICE
SOUTH DAKOTA STATE UNIVERSITY
U.S. DEPARTMENT OF AGRICULTURE

Chemical Weed Control in Corn 1977

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Use a good rotation, proper seedbed preparation, timely cultivation and herbicides to control weeds in corn. Cultivation alone will not control most perennial weeds. Crop rotation and intensive cultivation are helpful, but herbicides are usually required.

Cultivation for Weed Control

Proper tillage immediately before planting kills weeds that have emerged and prevents others from getting a head start on the crop. Use a rotary hoe or flextine harrow to control emerging weeds when the crop is small. After the corn is planted, choose from several cultivation systems, depending on your situation.

Corn planted in conventional row spacings can be cultivated with row crop cultivators. Use disks in place of inside shovels for furrow planted corn; "throw out" on first cultivation, "throw in" on second when weeds emerge.

Special row cultivators designed for minimum-till planting systems reduce the problems caused by plant residue on the soil surface. Chopping or shredding the previous year's corn stalks reduces cultivation problems.

Rotary Hoe. Use a rotary hoe at a speed of 8 to 10 miles per hour. It is most effective if used before small weed seedlings develop green color and if the soil is crusted. Hoeing during the heat of the day reduces breakage if crop plants are large. Two hoeings can be done for about the same cost as the first row cultivation.

Flextine Harrow. Operate a flextine harrow at 2 miles per hour or less. It is most effective on weed seedlings less than ¼ inch high. Three harrowings can be done for about the same cost as the first row cultivation.

Herbicides for Weed Control

Herbicides can aid in controlling weeds in corn, but are not meant to be replacements for sound management.

Granules vs Spray Formulations. Some herbicides are available in spray or granular formulations. Granules are preferred by some growers because they are easier to handle when band treating. However, granules usually cost slightly more per pound of active ingredient than spray formulations.

Broadcast vs Band Application. Band applications reduce the cost per acre for chemical. They also provide early season weed control and reduce yield losses that occur during the first 3 to 4 weeks after planting.

Use a band that is 12 to 14 inches wide for surface-planted corn. Herbicides are usually applied in a 7-inch band instead of broadcast on furrow or lister-planted corn. Use special nozzles that apply the herbicide uniformly behind the press wheel of the planter.

Preplant incorporated herbicides usually are not banded because suitable equipment is generally not available to incorporate the herbicide properly in the row ahead of the planter.

For band application, determine the amount needed for the area actually treated. For example, if the broadcast rate of 3 lb/A of product is applied in 12-inch bands to 36-inch rows, only a third of the area is actually treated as the field is crossed, and only one-third of the 3 lb/A rate is needed. Therefore, 1 pound of product is all that is needed to band spray each acre. See fact sheet 342, "Checking Weed Sprayers."

Irrigated Corn. Herbicide results and treatment suggestions are based on dryland tests. Unless the field is irrigated soon after planting or the herbicide is applied through the irrigation system, early season weed control is similar to non-irrigated crops. A few herbicides are labeled for use through center-pivot systems. Since irrigation can stimulate the amount of weed growth (especially late season weeds), use herbicides with greater residual effect to improve season-long weed control. In furrow-irrigated corn, the herbicide layer is usually disturbed when furrows are made, resulting in late-season weed growth.

Minimum Tillage. Reduced tillage systems usually leave more plant residue on the surface. This residue may distort the herbicide pattern on the soil or intercept some of the chemical, lowering overall weed control. Devices to remove residue from the row area will reduce this problem for preemergence band applications.

Combinations and Mixtures. Combinations of herbicides capitalize on the good points of several herbicides while minimizing weak points. Herbicides used in mixtures may be purchased separately and tank-mixed in the sprayer or purchased in one container as a commercial pre-mix. Tank mixtures allow more flexibility in selecting the rate of each herbicide to be used. Mix only those herbicides that are labeled for use together.

Some herbicides are labeled for application in liquid fertilizer carrier. Check the product label for mixing directions. Usually wettable powder or flowable formulations should be pre-mixed with fertilizer or water before being added to the spray tank. Add emulsifiable concentrates last. Agitation is required. It is advisable to test mix a small quantity of the products before filling the sprayer.

Herbicide Suggestions

Information in this publication is based on research by the South Dakota Agricultural Experiment Station and other research or observations. Herbicides are included only after the chemical is registered by the Environmental Protection Agency (EPA) as to residue tolerances in crops used for food or feed.

Information in this fact sheet is designed to provide a summary of herbicide uses and does not imply a guarantee or responsibility for results. You need the following information to secure maximum benefit from the tables.

1. **Weed problem.** Weeds are classified as broadleaved weeds (includes the more common weeds such as lambsquarters, pigweed, and kochia) and weedy grasses (includes green and yellow foxtail). A few special weeds are listed individually. Herbicide performance on specific weed species is given in Table 1.

2. **Chemicals.** Herbicide uses are based on the actual chemical (acid equivalent or active ingredient) in each herbicide product. The common and trade name of most chemicals is listed. Product formulation is listed with the trade name. Trade names for chemicals such as 2,4-D are too numerous to list. The label for specific products may vary as to crop, rate, application directions, etc.

Crop tolerance to several herbicides is shown in Table 1. A summary of herbicide performance in experimental farm plots is shown in Table 2. The amount of 2,4-D usually required to control several weeds at different growth stages is shown in Table 3.

Follow the Label

Federal regulations make it unlawful for any person to use an herbicide in a manner inconsistent with its labeling. This includes the kind of crop and weed; rate, carrier and other application directions; storage, disposal and protective clothing; or other precautions stated.

The treatments listed under "Corn Herbicides" are those considered to be most promising for the range of weed problems and conditions in South Dakota. "Other Corn Herbicides" may be useful for special weed problems, have experimental label or are useful within limitations.

3. **Rates.** The amount of actual chemical per acre for broadcast application is listed in one column and the amount of product per acre is listed with the trade name and formulation in another column. The amount of product, trade name and formulation is not listed for chemicals having numerous trade names.

The range in rates includes most maximum amounts listed on the product label. The rate for soil applied herbicides varies according to soil texture, soil organic matter and weed species. Post-emergence herbicide rates are based on the kind and size of the weed, growing conditions and formulations used. Additional comments about rates used in South Dakota field tests are included in the "remarks" column.

It is important to read the label for that product.

Table 1 Weed Control Rating and Crop Tolerance Corn Herbicides

Table 1 gives a general rating of weed control and crop tolerance with recommended rates used under field conditions. The ratings are based on plot data and other observations. Weed control and crop tolerance vary with soil and weather conditions, the rate used and other factors. For some weeds, special rates listed on the label must be used to get indicated results.

A weed control rating of "1" is assigned those treatments giving the best control of the weed. Perennial control refers to top-growth suppression. Crop tolerance refers to visual effects; these do not necessarily cause a yield reduction.

	Broadleaved Weeds										Grassy Weeds						
	Sunflower	Velvetleaf	Cocklebur	Wild buckwheat	Smartweed	Kochia	Mustard	Lambsquarters	Pigweed	C. thistle, F. bindweed	Barnyard grass	Foxtails	Sandbur	Panicum	Wild oats	Quackgrass	Crop tolerance
Preplant Incorporated																	
AAtrex/Atrazine	1	1	1	1	1	1	1	1	1	5	2	2	3	4	3	1	E
Sutan+	5	4	5	4	4	4	4	4	3	5	1	1	1	1	2	5	E
Sutan+ + Atrazine	2	2	2	1	1	1	1	1	1	5	1	1	2	1	2	4	E
Sutan+ + Bladex	2	3	3	1	1	2	1	1	3	5	1	1	2	1	2	5	E
Eradicane	5	3	5	2	3	3	4	1	1	5	1	1	1	1	1	3	E
Preemergence																	
AAtrex/Atrazine	1	2	2	1	1	1	1	1	1	5	2	2	3	4	3	2	E
Lasso	5	5	5	3	4	4	4	3	2	5	1	1	3	1	3	5	E
Ramrod/Bexton/ Propachlor	5	5	5	4	4	5	5	4	3	5	2	1	3	1	4	5	E
Bladex	2	4	2	1	1	2	1	1	4	5	3	2	3	1	3	5	E
Lasso + Atrazine	2	3	2	1	1	1	1	1	1	5	1	1	3	1	3	4	E
Lasso + Bladex	2	4	3	1	1	2	1	1	1	5	1	1	3	1	3	5	E
Lasso + Banvel	2	4	3	1	1	2	4	2	2	5	1	1	4	1	3	5	G
Ramrod + Atrazine	2	3	2	1	1	1	1	1	1	5	2	1	3	1	4	4	E
Prowl	5	3	5	4	3	4	4	2	3	5	2	1	3	1	3	5	E
Prowl + Atrazine	2	2	2	1	1	1	1	1	1	5	2	2	3	1	3	4	E
Post-emergence																	
AAtrex/Atrazine + oil	1	1	1	1	1	2	1	1	1	4	3	2	3	5	3	3	G
2,4-D	1	2	1	2	3	3	1	1	2	2	5	5	5	5	5	5	F
Banvel	2	4	2	1	1	2	2	1	2	2	5	5	5	5	5	5	G
2,4-D + Banvel	1	2	1	1	1	2	1	1	2	1	5	5	5	5	5	5	F

Weed ratings: 1 = Good; 2 = Fair; 3 = Marginal; 4 = Poor; 5 = None.
Crop tolerance: E = Excellent; G = Good; F = Fair; P = Poor.

4. **Time to apply.** Time to spray is given for all chemicals with respect to the crop unless otherwise stated.

Preplant—treatments made before the crop is planted and in most cases, incorporated with a disk. Some herbicides must be incorporated immediately after spraying to prevent loss of chemical to volatilization or breakdown from sunlight. The rainfall requirement is usually less critical and the seasonal variation in performance is usually less with preplant than with preemergence applied herbicides.

Preemergence—treatments made after planting, but before emergence of the crop and weeds. Weed control is usually better if tillage operations for seedbed preparation are performed immediately before planting and if the herbicide is applied immediately after planting. For best results, the soil should be free of large lumps and heavy amounts of plant residue.

These treatments require moisture within 1 week after application to move the chemical into the soil so it can be taken up by roots and shoots. More moisture is required if the soil is dry than if it is moist. A shallow cultivation with a rotary hoe or flextine harrow is suggested if weeds emerge before adequate moisture is received. Preemergence herbicides are not effective if the area is disturbed by deep cultivation.

Post-emergence—treatments made after the crop and weeds have emerged. Weeds should be controlled as early as possible to prevent yield losses due to early season weed competition. The most desirable time to spray the crop and weed is usually short.

5. **Remarks.** Performance and application information and crop use limitations of most importance are included. The information is subject to change and may not be the same on all product labels.

Table 2 Corn Weed Control Summary

Data in Table 2 provide a measure of weed control consistency. The averages include estimated early-season weed control on demonstration plots for a 3-year period (1974-76) at SDSU experimental farms near Brookings, Beresford, and Redfield. The major variable is rainfall.

Weed control ratings are for uncultivated plots. You can improve weed control by cultivation, especially for poor or marginal treatments.

Predominant weed species included in the averages are green and yellow foxtail, redroot and prostrate pigweed, and lambsquarters. Rates used were those currently recommended for the area.

Treatment	Percent Weed Control 3-Year, Gr	3 Loc Avg. Bdlf
Preplant Incorporated		
AAtrex	88	97
Sutan+	90	66
Sutan+ + AAtrex	92	96
Sutan+ + Bladex	91	93
Eradicane	96	92
Preemergence		
AAtrex	71	92
Bladex	79	78
Prowl	80	74
Ramrod	95	69
Lasso	94	81
Lasso + AAtrex	90	93
Lasso + Bladex	90	92
Lasso + Banvel	89	90
Ramrod + AAtrex	89	89
Post-Emergence		
AAtrex +oil	76	90
Bladex	70	82

CORN HERBICIDES

Weeds	Common name	Rate lb/A Actual* Broadcast	Product/A**-Trade name-Formulation	Time to Spray and Remarks
Annual grasses	butylate	3-4	*3 ¾-4¾ pt Sutan+-6.7#/gal*	Preplant incorporated. Incorporate immediately with a tandem disk set to cut 4-6 inches deep and harrow. Cross disking at right angles ensures thorough incorporation. Use the higher rate for most soils. May be applied in liquid fertilizer carrier. May be applied up to 2 weeks before planting. Do not use on seed production fields. No carryover.
Numerous annual grasses and annual broadleaved	butylate + atrazine	3-4 + 1-1½	*3¾-4¾ pt Sutan+-6.7#/gal* + *1¼-2 lb AAtrex, Atrazine-80% wp* or *1-1½ qt AAtrex, Atrazine-4#/gal*	Preplant incorporated as for butylate. Tank-mix. Use the high rate on heavy, clay soils. The lower rates have been satisfactory for susceptible weeds in most SDSU tests. May be applied in liquid fertilizer carrier. Do not use on seed production fields. Risk of carryover reduced but atrazine may damage small grain and legume/grass seeding the following year. Carryover effect greater under no-plow systems.
	butylate + cyanazine	3-4 + 1-2	*3¾-4¾ pt Sutan+-6.7#/gal* + *1¼-2½ lb Bladex-80% wp* or *3-4 pt Bladex-4#/gal*	Preplant incorporated as for butylate. Tank-mix. Lower rates for light, sandy soil; higher rates for heavy, clay soil. Rates of 3 (butylate) + 1½ (cyanazine) lb/A active have been satisfactory for susceptible weeds in most SDSU tests. Do not use on seed production fields. No carryover.
Numerous annual grasses; some annual broadleaved	EPTC + safener	3-6	*3¾-7¼ pt Eradicane-6.7#/gal*	Preplant incorporated as for butylate. Use 3-4 lb/A active for susceptible annual grasses and the high rate for heavy infestations of wild cane. May be applied in liquid fertilizer carrier. Do not use on seed production fields. No carryover.
Numerous annual broadleaved; some annual grasses	atrazine	2-3	*2½-3¾ lb AAtrex, Atrazine-80% wp* or *2-3 qt AAtrex, Atrazine-4#/gal*	Preplant incorporated, preemergence or early postemergence without crop oil. Preemergence treatments require ½-1 inch of rain. Rainfall improves control for post-emergence treatments. Use the lower rate on light, sandy soil and the higher rate on heavy, clay soil. Preplant applications have been most consistent. Apply and incorporate 1-2 inches deep with a shallow disking within 2 weeks of planting. Preplant and preemergence applications may be made in liquid fertilizer carrier. Soybeans, small grain and grass/legume seedings may be damaged from atrazine carryover the following year. Carryover effect greater under no-plow systems.
Numerous annual broadleaved; some annual grasses	atrazine + crop oil	1¼-2 + crop oil	*1½-2½ lb AAtrex, Atrazine-80% wp* or *1¼-2 qt AAtrex, Atrazine-4#/gal* + *crop oil*	Post emergence before weeds are over 1 inch tall. The higher rate gives better grass control and gives control for a longer time. Rainfall improves results. Not suggested for seed fields. Soybeans, small grain and grass/legume seedings may be damaged from atrazine carryover the following year. Follow surfactant label directions. Crop oils superior to wetting agents. Regular crop oil usually used at 1 gal/A, concentrated crop oil at ½ gal/A.
Numerous annual grasses; few annual broadleaved	alachlor	2-3½	*2-3½ qt Lasso-4#/gal* or *16-26 lb Lasso-15% gran*	Preemergence. Must have ½-¾ inch of rain within 1 week of application. Use the low rate on light sandy soil and the higher rate on heavy, clay soil. Rates of 2½-3 lb/A active have been satisfactory for susceptible weeds in most SDSU tests. Sprays may be applied in liquid fertilizer. Spray and granules appear to be equally effective. Do not over-apply granules. No carryover.
Numerous annual grasses and annual broadleaved	alachlor + atrazine	1½-2½ + 1-1½	*1½-2½ qt Lasso-4#/gal* + *1¼-2 lb AAtrex, Atrazine-80% wp* or *1-1½ qt AAtrex, Atrazine-4#/gal*	Preemergence. Rainfall required. Tank-mix. Use the lower rates for light, sandy soils and the higher rates for heavy, clay soil. Rates of 2 (alachlor) + 1 (atrazine) lb/A active have been satisfactory for susceptible weeds in most SDSU tests. Preplant incorporated applications give less consistent annual weed control. May be applied very early post-emergence if necessary. Preemergence applications may be made in liquid fertilizer carrier. Carryover minimized but small grain and grass/legume seedings may be injured from atrazine. Soybeans may be damaged if more than 1 lb/A active atrazine is used. Carryover effect greater under no-plow systems.
	alachlor + cyanazine	2-2½ + 1-2	*2-2½ qt Lasso-4#/gal* + *1¼-2½ lb Bladex-80% wp* or *1-2 qt Bladex-4#/gal*	Preemergence. Rainfall required. Tank mix. Use the lower rates for light, sandy soil and the higher rates for heavy, clay soil. Rates of 2 (alachlor) + 1½ (cyanazine) lb/A active have been satisfactory for susceptible weeds in most SDSU tests. May be applied in liquid fertilizer. No carryover.
Numerous annual grasses	propachlor	4-5.8	*6-9 lb Ramrod, Propachlor-65% wp* or *20-30 lb Ramrod, Bexton, Propachlor-20% gran*	Preemergence. Must have ⅓-¾ inch rain within 1 week. Minimum rainfall requirement for grass control. The rate of 5 lb/A active has been satisfactory for susceptible weeds in most SDSU tests. Spray formulations may be applied in liquid nitrogen fertilizer. Granule formulation less irritating to handle. Spray and granules appear to be equally effective. Calibrate granular applicator for each product. Spray formulations may be applied very early post-emergence in emergency situations. No carryover.
Numerous annual grasses and annual broadleaved	propachlor + atrazine	2½-4 + 1-1½	*3¾-6 lb Ramrod, Propachlor-65% wp* + *1¼-2 lb AAtrex, Atrazine-80% wp* or *1-1½ qt AAtrex, Atrazine-4#/gal*	Preemergence. Rainfall required. Tank mix or commercially premixed wettable powder or granule. Carryover minimized; however atrazine may damage small grains and grass/legume seedings the following year. Soybeans may be damaged when more than 1 lb/A active atrazine is used. Carryover effect greater under no-plow systems. Granules appear to give less consistent weed control if rainfall is low or marginal. Spray formulations may be applied very early post-emergence in emergency situations.
			5-8 lb Ramrod/atrazine-48+21% wp	
			15-30 lb AAtram-13+6% gran	
Broadleaved	2,4-D ester	¼	– *Numerous*	Post-emergence to 1 week before silking. Use drop nozzles after corn is 8-10 inches tall. Stalks may become brittle and can break. Risk of brittleness increases with cool and wet or hot and humid conditions or with higher rates. Corn hybrids vary in tolerance. Check product label.
	2,4-D amine	½	– *Numerous*	
	2,4-D	1	– *Numerous*	For retreating perennials or pre-harvest application with high clearance sprayer after silks are brown. Some products are labeled for aerial application.
Broadleaved	dicamba	⅛-¼	*¼-½ pt Banvel-4#/gal*	Post-emergence before corn is 36 inches tall or not later than 15 days before tassel. Especially effective for Canada thistle. The higher rate is more effective on perennials or larger annual weeds. Some risk of crop injury under rapid growth conditions. Use drop nozzles to get better coverage of weeds after crop forms a canopy over weeds. Avoid drift to soybeans and other sensitive crops. Use 20 gal/A carrier and not over 20 psi pressure. Do not apply after soybeans in area are over 8 inches. Do not apply if wind is toward soybeans or if wind is over 5 mph or if expected high temperature is over 80-85 degrees F. June 20 is the suggested cutoff date if susceptible crops are nearby. Do not harvest for dairy cattle prior to milk stage.
Broadleaved	dicamba + 2,4-D amine	⅛-¼ + ¼-½	*¼-½ pt Banvel-4#/gal* + – *Numerous*	Post-emergence. Tank-mix or commercial premix. Use drop nozzles after corn is 8 inches tall. Lower rates for susceptible annuals; higher rate most effective on broadleaved perennials. Follow drift precautions and restrictions as for each product alone.
			.8-1.6 pt Banvel K-1¼+2½#/gal	

* Acid equivalent or active ingredient
** Rate—broadcast basis

OTHER CORN HERBICIDES

Weeds	Common name	Rate lb/A Actual* Broadcast	Product/A**-Trade name-Formulation	Time to Spray and Remarks
Some annual grasses and broadleaved	cyanazine	1¼-4	*1½-5 lb Bladex-80% wp* or *1¼-4 qt Bladex-4#/gal* or *8-27 lb Bladex-15% gran*	Preemergence. Must have ½-1 inch of rain within 1 week after treating. Results have been less consistent in low or marginal rainfall situations than for some other treatments. Poor on pigweed. Appears to be most useful when used in combination with other herbicides. Granules appear to be less consistent than sprays if rainfall is low or marginal. No carryover. Adjust rate to soil type.
		1¼-2	*1½-2½ lb Bladex-80% wp*	Post-emergence. Applications to small weeds before the 5-leaf crop stage have given poor to good weed control. Variability appears to be greater than for atrazine + crop oil. Labeled surfactants (not petroleum crop oil) improve control in dry conditions. Some leaf burn has been noted. Not for seed fields. No carryover.
	alachlor + dicamba	2½ + ¼-½	*2½ qt Lasso-4#/gal* + *½-1 pt Banvel-4#/gal*	Preemergence. Rainfall required. Tank-mix. Lower rainfall requirement than other alachlor tank-mixes. Use only on heavier, clay soils. Marginal crop tolerance on lighter soils. Crop stunting has been noted. Good annual broadleaved control. Perennials not controlled. No carryover. Label variations in rate. Not suggested for seed fields.
	penoxalin	1½-2	*1½-2 qt Prowl-4#/gal*	Preemergence. Must have ½-1 inch of rain within 1 week after treating. Penoxalin alone has given less consistent weed control than some other treatments in some tests. Most promising in higher rainfall areas. The tank mix of penoxalin plus atrazine is promising where velvet leaf is part of the general weed problem. Tank mix with dicamba has not been tested. Do not incorporate penoxalin. These treatments (except dicamba combination) may be applied in liquid fertilizer carrier. No carryover anticipated from these treatments except if atrazine is used.
	penoxalin + atrazine	1-1½ + 1-1½	*1-1½ qt Prowl-4#/gal* + *1¼-2 lb AAtrex, Atrazine-80% wp* or *1-1½ qt AAtrex, Atrazine-4#/gal*	
	penoxalin + cyanazine	1-1½ + 1½-2¼	*1-1½ qt Prowl-4#/gal* + *2-3 lb Bladex-80% wp* or *1½-2¼ qt Bladex-4#/gal*	
	penoxalin + dicamba	1½ + ⅜	*1½ qt Prowl-4#/gal* + *⅜ qt Banvel-4#/gal*	
Numerous annual grasses; few annual broadleaved	metolachlor	2-3	*2⅔-4 pt Dual-6#/gal*	Preemergence. Full label for 1977. Must have ½-1 inch of rain within 7 days. Metolachlor has performed similar to alachlor. Use the higher rate for heavy soil. Corn should not be grazed or used for fodder or silage. Crops other than corn should not be planted for 18 months after treating.
Numerous annual grasses and annual broadleaved	metolachlor + atrazine	1¼-2 + 1-2	*1⅔-2⅔ pt Dual-6#/gal* + *1¼-2½ lb AAtrex-80% wp* or *1-2 qt Attrex-4#/gal*	Tank-mix. Refer to metolachlor above. Atrazine improves control of broadleaves. Atrazine carryover may damage small grain or grass/legume seedings the following year.
Some annual broadleaved	dicamba + atrazine	¼ + 1-1½	*½ pt Banvel-4#/gal* + *1¼-2 lb AAtrex-80% wp*	Early post-emergence. Tank-mix. Do not use crop oil or other surfactants. Atrazine plus crop oil usually provides better grass control. Note carryover remarks for atrazine.
Numerous annual grasses and annual broadleaved	propachlor + linuron	1⅓-2⅔ + ⅔-1¼	*2-4 lb Ramrod-65% wp* + *1⅓-2½ lb Lorox-50% wp*	Preemergence. Tank-mix. Rainfall required. Linuron improves control of some annual broadleaved weeds. Lower rates for light, sandy soil. Rates of 3 (propachlor) + 1 (linuron) lb/A active are suggested as maximum for most soils. Crop tolerance to linuron considered marginal. No carryover.
Some annual grasses and annual broadleaved	ametryn	1½-2	*2-2½ lb Evik-80% wp*	Post-emergence. Directed spray. Rescue operation for several annual weeds. Apply when corn is 12 inches tall to 3 weeks before tassel. Weeds should be less than 4 inches tall for best results. Height differential necessary. Leaf lifter and gauge wheels required. Spray contact with corn plants results in injury. No carryover.

* Acid equivalent or active ingredient ** Rate—broadcast basis

Table 3 Amount of Chemical For Weeds

The amount of 2,4-D usually required to control several weeds at different growth stages is listed below. The same amount of chemical is less effective as the weed matures. Control may vary due to growing conditions and formulation. The rates shown are not included on the labels of all formulations or products. Refer to the product label and the recommendations for corn.

¼ lb/A	⅓ lb/A	½ lb/A	¾ - 1 lb/A
	Kochia, 1-2 in.	Kochia, 2-4 in.	Canada thistle
Marsh elder, 2-4 in.	Marsh elder, over 4 in.		Field bindweed
Ragweeds, 2-4 in.	Ragweeds, over 4 in.		Perennial sowthistle
Pigweeds, 2-4 in.	Pigweeds, over 4 in.		Hoary cress
Mustard, 4-6 in.	Mustard, over 6 in.		Leafy spurge
Lambsquarters, 4-6 in.	Lambsquarters, over 6 in.		Russian knapweed
	Cocklebur, 2-6 in.	Cocklebur, over 6 in.	
	Sunflower, 2-6 in.	Sunflower, over 6 in.	
	Lady's thumb, 2-6 in.	Lady's thumb, over 6 in.	
	Velvetleaf, 4-6 in.	Velvetleaf, over 6 in.	
	Russian thistle, 2-4 in.	Russian thistle, 4-6 in.	
	Wild buckwheat, 2 leaves		

Herbicides for Sweet Corn

The following herbicides are labeled for use on sweet corn. Check the product label for special precautions.

Lasso	*Eradicane*
Lasso + AAtrex/Atrazine	*Sutan+*
Lasso + Bladex	*Sutan+ + AAtrex/Atrazine*
Ramrod/Bexton/Propachlor	*Sutan+ + Bladex*
Ramrod/Propachlor + AAtrex/Atrazine	*2,4-D*
AAtrex/Atrazine	*Bladex*

Every effort has been made to avoid mechanical error in preparation of this publication. The label should be considered the final guide.

Trade names are used for reader convenience and do not imply product endorsement.

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